

Listing of the Claims

1-15. (canceled)

16. (previously presented) A display system for passive displays, wherein the display system is configured to receive an input signal including both display control data and image data, the display system comprising

a control configured to process the display control data included in the input signal and to control the optical characteristics of incident light to a passive display and to process the image data to control optical characteristics of the displayed image based on the display control data.

17. (canceled)

18. (canceled)

19. (previously presented) An image processing system for preparing control data for use in displaying a sequence of images, such control data to be included with input image data to a passive display with an illuminating light source and used to control images displayed by the passive display and the illuminating light source, the image processing system comprising:

a buffer memory to receive image data representative of the sequence of images,

an analyzer configured to analyze image data of a plurality of images of the sequence of images, to create illumination control data for use in controlling optical characteristics of the incident light to a light modulating display and to create image control data for controlling processing of the image data in the passive display to control to characteristics of displayed images, and to include the control data together with the input image data in a combined output signal of the image processing system to be used as the input to a passive display with an illuminating light source.

20. (previously presented) The system of claim 19, further comprising a transfer media for transferring the combined output signal including the control data and the image data to a display, said transfer media comprising at least one of broadcast radio signals or video signals that include the control data with the image data.

21. (previously presented) The system of claim 20, said transfer media comprising a storage medium, said storage medium comprising at least one of a dvd, cd, tape, computer memory or hard drive.

22. (previously presented) The system of claim 19, further comprising a multiplexer for time multiplexing the control data with the image data.

23. (canceled)

24. (previously presented) A display system, comprising
a passive display,
a source of illumination to illuminate the passive display and cooperative with the passive display to present images, and
a storage medium providing an input signal including display control data and image data, the display control data including illumination control data to control optical characteristics of light from the source of illumination and image control data to control characteristics of displayed images, and wherein the display control data is based on an evaluation of illumination of an input scene represented by an image for display, the evaluation occurring prior to storage of the display control data on the storage medium.

25. (previously presented) The system of claim 24, wherein the display control data is based on an evaluation of illumination of an input scene represented by several images for display, and wherein the passive display is operable to display a sequence of images, and wherein the several images include a number of images in the sequence of images preceding or following a given image for display.

26-35. (canceled)

36. (previously presented) An image processing system for preparing a signal that includes image data and control data a passive display with an illuminating light source, the image processing system comprising

an image obtaining device to provide image data representing input scenes, an image processing apparatus configured to evaluate image data of input scenes, and to provide display control data to be included with the image data, the display control data including illumination control data to control the optical characteristics of an illumination source for a passive display, and image processing control data to control processing of an image displayed by the illuminated passive display.

37. (previously presented) A method of editing and encoding images represented by image data captured by an image recording device, where the captured images are composed of an assemblage of pixels for display or projection using a passive display to which input light is incident to provide images, comprising

determining display control data to be used in the display to obtain a desired appearance of a displayed image including control data for a characteristic of the input light and control data for the number of shades of gray available in the displayed image, adding the determined display control data to the image data, the display control data corresponding to the adjusted light characteristic and number of shades of gray, and

storing both the display control data and the image data for use subsequently to adjust the characteristic of input light and number of shades of gray available in the image to obtain a desired appearance of the image provided by a passive display with an illuminating light source.

38. (previously presented) The method of claim 37, further comprising visually viewing an image while determining the display control data to adjust a characteristic of the input light and a number of shades of gray available in the image to obtain a desired appearance of the displayed image.

39. (original) The method of claim 37, said adjusting comprising manually adjusting.

40. (canceled)

41. (previously presented) The method of claim 37, further comprising obtaining the illumination of a captured scene portrayed by an image, and adding display control data to provide an image having illumination that is substantially the same as the captured scene.

42. (previously presented) The method of claim 41, said obtaining comprising at least one of obtaining an average value of the illumination of the captured scene, computing the illumination of the captured scene by obtaining a spatial distribution of light intensity over the area of the input scene, and obtaining illumination information from a number of images of respective scenes.

43. (original) The method of claim 42, wherein the image is a given image in a sequence of images assembled to provide a motion picture effect, and wherein said obtaining illumination information from a number of images of respective scenes comprises obtaining such illumination information from a number of images in the sequence that precede or follow the given image in the sequence.

44-48. (canceled)

49. (previously presented) The display system of claim 16, wherein the control is configured to process the display control data and the image data to maximize shades of gray in the displayed image based on the display control data.

50. (previously presented) The system of claim 19, wherein the analyzer is configured to create image control data to maximize shades of gray of displayed images.

51. (previously presented) The system of claim 19, wherein the analyzer is configured to create image control data to control gamma of the passive display.

52. (previously presented) The display system of claim 24, wherein the image control data modifies gamma of the passive display.

53. (previously presented) The display system of claim 24, wherein the image control data maximizes shades of gray in respective displayed images.

54. (previously presented) The display system of claim 24, wherein the image control data maximizes a number of shades of gray in respective displayed images.

55. (previously presented) The system of claim 36, wherein the image processing control data maximizes shades of gray in an image displayed by the illuminated passive display.

56. (previously presented) The system of claim 36, wherein the image processing control data controls gamma of the illuminated passive display.

57. (previously presented) A display system comprising:
a passive display;
an illumination source to illuminate the passive display and cooperate with the

passive display to display images; and

display circuitry operatively coupled to the passive display and the illumination source and configured to receive an input signal wherein the input signal includes both image data and display control data; and

wherein the display circuitry is configured to process the display control data included in the input signal, and to process the image data included in the input signal to the passive display and control the level of the illumination source based on the display control data.

58. (previously presented) The display system of claim 57, wherein the display control data includes illumination control data for controlling the source of illumination, and the display circuitry is configured to control the source of illumination based on the illumination control data.

59. (previously presented) The display system of claim 57, wherein the display control data further includes image modification data, and the display circuitry is configured to process the image data within the input signal using the image modification data to control the passive display to maximize the shades of gray of the displayed image.

60. (previously presented) The display system of claim 57, wherein the display control data further includes image modification data, and the display circuitry is configured to process and modify the image data within the input signal to control the passive display to maximize the shades of gray of the displayed image.

61. (previously presented) The display system of claim 57, wherein the display control data includes gamma control data, and the display circuitry is configured to process and modify the image data within the input signal to control the passive display by modifying the gamma of the passive display

62. (previously presented) The display system of claim 57, wherein the display control data includes gamma control data for controlling gamma of the displayed image.

63. (previously presented) The display system of claim 57, wherein the display control data includes color control data for controlling the passive display and/or the illumination source, and the display circuitry is configured to control the passive display and/or the source of illumination to maximize color fidelity of the displayed image based on the color control data.

64. (previously presented) The display system of claim 57, wherein the illumination source includes a red light source, a green light source and a blue light source, and the display control data includes color control data for controlling the source of illumination based on the color control data.

65. (previously presented) A display system comprising:
a passive display;
an illumination source to illuminate the passive display and cooperate with the passive display to display images; and
display circuitry operatively coupled to the passive display and the illumination source and configured to receive an input video signal indicative of an image to be displayed, wherein the input video signal includes image data and display control data;
and
wherein the display circuitry includes decoding circuitry configured to decode and process the display control data within the input video signal and control the passive display and the illumination source based on the display control data.